

SHORT COMMUNICATION

***Acacia citriodora* (Fabaceae: Mimosoideae), a new species from northern Australia**

The new species described below has appeared under various names in a range of publications and databases over the past 13 years. It was first recognised in the late 1980s, as *Acacia citriodora* ms., by Mary Tindale and David Keith (*in sched.*) in connection with preparing a treatment for *Flora of Australia*, but was never formally published. The entity first appeared in print, as *Acacia* sp. G, in *Flora of the Kimberley Region* (Wheeler 1992) and then as *Acacia* sp. E in *Flora of Australia* (Tindale *et al.* 2001). It subsequently appeared under various informal names (see synonyms below), the most notable being *A. citriodora* ms. in *WATTLE: Acacias of Australia* (Maslin 2001). We are here validating this name.

Acacia citriodora Kodela & Maslin, *sp. nov.*

Type: Mount Isa–Camooweal road, Queensland, June 1967, C.H. Gittins 1260 (*holo:* NSW 84925; *iso:* BRI, CANB, DNA, PERTH).

Acacia sp. G, J.R. Wheeler in J.R. Wheeler (ed.), *Fl. Kimberley Reg.* p. 335, Figure 92G (1992).

Acacia sp. E, M.D. Tindale *et al.* in A.E. Orchard & A.J.G. Wilson (eds), *Fl. Australia* 11B: 228, Figure 48T–V (2001), *p.p.* (see discussion below).

Acacia citriodora Tindale & D.Keith ms. in B.R. Maslin (coordinator), *WATTLE: Acacias of Australia* CD-ROM (2001), *nom. inval.*

Acacia sp. Barklys (J.L. Egan 124), in I.D. Cowie & D.A. Albrecht (eds), *Checklist of Northern Territory Vascular Plant Species* (2005); Western Australian Herbarium, in *FloraBase* <https://florabase.dpaw.wa.gov.au/> [accessed November 2015].

Acacia sp. Coolullah (M. Lazarides 3988), Queensland Government, *Census of the Queensland Flora 2014* <https://data.qld.gov.au/dataset/census-of-the-queensland-flora-2014> [accessed November 2015].

[*Acacia arida* auct. non Benth.: L. Pedley, *Proc. Roy. Soc. Queensland* 75: 34 (1964).]

[*Acacia hilliana* auct. non Maiden: L. Pedley, *Austrobaileya* 1: 134 (1978).]

Spreading, multi-stemmed, resinous, viscid, aromatic (citrus odour), glabrous *shrub* 0.5–2 m high and to 2(–4) m across, much branched, flat-topped. *Bark* smooth to rough and fissured, grey or grey-brown. *Branchlets* terete, slightly angled at apices, smooth or very sparsely tuberculate, obscurely ribbed. *Phyllodes* single or rarely two clustered at nodes, narrowly oblong-elliptic to linear but often

broadest above the middle, (15–)20–40(–55) mm long, (1.5–)2–4(–5) mm wide, l:w = 6–20(–30), flat, mostly shallowly incurved but often a few straight or shallowly sigmoid, smooth or very rarely tuberculate, bright green (especially when young), dull greyish or sub-glaucous, with numerous, obscure or slightly pronounced longitudinal nerves spaced at (2–)3–4 per mm, anastomosing minor nerves absent; apices with a distinct, coarsely to ± sharply pungent point; glands obscure, 1–2(–3), the lowermost 4–15(–22) mm above pulvinus, occasionally absent. *Inflorescences* simple; *peduncles* 10–25(–35) mm long; *spikes* 9–25(–30) mm long, golden. *Flowers* 5-merous; *calyx* 0.5–1.2 mm long, dissected to 1/2–4/5 its length, the lobes ± spatulate; *corolla* 1–2 mm long, dissected c. 1/2 its length. *Pods* erect, linear-oblanceolate, basally tapered, flat, straight-sided, 25–50 mm long, 3–5(–5.5) mm wide, woody, very viscid, obliquely nerved, opening elastically from apex with dehisced valves recurved; *margins* thick, pale-coloured. *Seeds* obliquely seated in pronounced depressions, obloid-ellipsoid, 3.2–5 mm long, brown or olive-brown, with often darker, open areole; *funicle-aril* narrowly conical.

Selected specimens examined. WESTERN AUSTRALIA: Kimberley District, 18.3 km NE of Mary River Crossing, Great Northern Hwy, 19 June 1976, *A.C. Beauglehole* 53282 (NSW, PERTH); 62 miles [99.7 km] SW [of] Halls Creek, 21 May 1971, *N. Byrnes* 2221 (DNA, NSW, PERTH); 21.5 km SW of Nicholson HS on road to Halls Creek, 6 Oct. 1992, *B.R. Maslin* 7135 (K, MEL, PERTH); 4 miles [6.4 km] E of Mary River Crossing, Great Northern Hwy, 21 May 1971, *J.R. Maconochie* 1144 (AD, DNA, NSW); 65 miles [104 km] W of Halls Creek, Margaret River region, S. Kimberley, 22 June 1973, *I.V. Newman* 630 (BRI, MEL, NSW, PERTH); Cambalin [Station], May 1970, *D. Power s.n.* (NT, PERTH 05893003); Great Northern Hwy, 3.5 miles [5.6 km] E of Mary River crossing, East Kimberleys, 15 July 1974, *J.H. Willis s.n.* (MEL, NSW, PERTH). NORTHERN TERRITORY: eastern boundary of Waanyi-Gaarawa Lands c. 24 km ENE of Benmarra, 22 Sep. 2015, *N. Cuff* 317 (DNA); between Camooweal and Barkley [Barkly] Homestead, 1 July 1992, *J.L. Egan* 124 (DNA, NT); Kirkimbie Station, Aug. 1994, *D. Napier s.n.* (DNA, NT). QUEENSLAND: 13 km from Mount Isa to Camooweal, 9 June 1978, *I.B. Armitage* 1072 (NSW); 45 km SSW of Lorraine Station HS, 9 Aug. 2004, *I.D. Fox* 3201 & *G.W. Wilson* (BRI, MEL); 12 miles [19.3 km] from Mount Isa on Camooweal road, May 1963, *C.H. Gittins* 747 (BRI, CANB, MEL, NSW); c. 100 km NE of Camooweal, near West Thornton Creek, 2 June 1991, *M. Hancock* 379 (NSW); 5 miles [8 km] ESE of Coolullah Station, 27 Aug. 1953, *M. Lazarides* 3988 (AD, BRI, CANB, DNA, MEL, NSW, PERTH); 49 miles [78.4 km] E of Camooweal township, 6 May 1948, *R.A. Perry* 759 (CANB, DNA, NSW, PERTH); 58 km E of Camooweal on Barkly Hwy, 17 July 1980, *C.F. Puttock & J.T. Waterhouse* UNSW 11079 (BRI, NSW, UNSW).

Phenology. Recorded flowering May to October, fruiting June to October.

Distribution. *Acacia citriodora* occurs in arid northern Australia, predominantly in the Kimberley region of Western Australia and far north-west Queensland, but populations extend to the Northern Territory near the respective borders; the distribution between the western and eastern occurrences appearing disjunct by over 700 km. In Western Australia it has been recorded from Camballin Station (south of Derby, west Kimberley) and the Halls Creek–Margaret River area in the east Kimberley, in the Northern Territory from the Kirkimbie Station and Barkly Homestead areas with a recent collection from east of Benmarra, and in Queensland mainly from the Mount Isa–Camooweal area. It forms relatively large, localised populations.

Habitat. Grows in gravelly, red or brown, skeletal or stony sand soils, on quartzite or laterite, on rises near drainage lines, stony ridges or plains, in spinifex-shrubland, *Acacia* scrubland or savannah eucalypt woodland.

Conservation status. Considered ‘not threatened’ in Western Australia (Western Australian Herbarium 1998–). In the Northern Territory it is currently treated, as *Acacia* sp. Barklys, as ‘data deficient’ (Northern Territory Government Department of Land Resource Management, undated). Not listed as endangered, vulnerable or threatened in Queensland (Queensland Government 2015) but may be of regional significance (Australian Government 2015, as *Acacia* sp. Coolullah).

Etymology. The specific epithet is from the Latin *citriodorus*, meaning lemon-scented, which refers to the aroma of the foliage.

Common name. Lemon-scented Wattle.

Affinities. *Acacia citriodora* is most closely allied to *A. hilliana*, which is readily distinguished by its phyllodes that are normally terete to compressed (rarely flat, at least when dry), narrower (0.5–1 mm wide/diam.) and more elongate (l:w = (25–)30–94). Furthermore, the phyllodes of *A. hilliana* are normally sparsely tuberculate (very rarely tuberculate in *A. citriodora*) and many specimens have some phyllodes clustered in groups of two or three at the nodes (single at nodes or rarely a few paired in *A. citriodora*). In Western Australia the distribution of *A. citriodora* is slightly further north of the more widespread and common *A. hilliana*, but in the Northern Territory and Queensland the two distributions generally coincide. However, there are no clear records of the two species being sympatric.

Acacia citriodora is more distantly related to *A. lysiphloia* F.Muell.; however, both species occur in the same general sub-group of sect. *Juliflorae* (Benth.) Maiden & Betche. *Acacia lysiphloia* can be readily recognised by its taller stature (to 6 m high), ‘Minni Richi’ bark (i.e. red-coloured and exfoliating from stems in narrow shavings that are recurved at each end), normally wider spikes and pods, and by its phyllodes that often possess appressed hairs on the nerves and margins, a more attenuated, acuminate tip and a more distinct gland situated closer to the base (1–4 mm above the pulvinus). Some specimens of *A. citriodora* had previously been confused with *A. arida* Benth., which is readily distinguished by being a non-resinous, taller shrub (0.5–3 m high) with punctulate phyllodes.

Rank. Given the nature of characters separating *A. citriodora* and *A. hilliana* it could be argued that these entities should be regarded as subspecies under *A. hilliana*. However, the two taxa are easily distinguished morphologically, they are seemingly never sympatric and both form large populations. Also, *A. hilliana* is very widespread and common in arid Australia and as such is commonly cited in literature and databases, and is represented in herbaria by very many specimens. Therefore, changing the name of this species will cause considerable disruption. It is for these reasons that it is considered more appropriate to treat these two taxa as distinct species.

Notes. The treatment of *A. citriodora* (as *Acacia* sp. E) by Tindale *et al.* (2001) in *Flora of Australia* contains discordant elements. Plants mentioned there as occurring between Port Hedland and Anna Plains, Western Australia, are now regarded as *A. hilliana* × *A. stellaticeps* (Maslin *et al.* 2010). Also, we here consider that the *D.A. Keith* 136 & *B. Pellow* specimen cited by Tindale *et al.* (2001) from Old Tanami mine site, Northern Territory, is not *A. citriodora* but is seemingly a hybrid possibly involving *A. lysiphloia*. Finally, the cited specimen, *J.R. Maconochie* 1144, from east of the Mary River, Western Australia, is a little atypical for *A. citriodora* in having somewhat crowded, slightly shorter than normal phyllodes (1–2 cm long).

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